ABSTRACT OF THE DISCLOSURE
AN ELECTROSURGICAL GENERATOR

An electrosurgical generator for supplying RF power to an electrosurgical instrument for cutting or vaporising tissue has an RF output stage (42) with an RF power bridge (Q1, Q2, Q3, Q4), a pair of output lines (74) and a series-resonant output network (48). The output impedance of the output stage (42) at the output lines (74) is less than $200/\sqrt{P}$ ohms, where P is the maximum continuous RF output power of the generator. The generator offers improved cutting and vaporising performance, especially in relation to the reliability with which an arc can be struck when presented with an initial low impedance load. Overloading of the output stage is prevented by rapidly operating protection circuitry responsive to a predetermined electrical condition such as a substantial short-circuit across the output lines. In the preferred embodiment, the output stage is capable of maintaining output pulses at least 1kW peak by supplying the power bridge from a large reservoir capacitor (60). Pulsing is dynamically variable in response to load conditions by controlling the maximum energy per pulse in response to the reservoir capacitor voltage.

(FIGURE 6)